

AMENDMENT

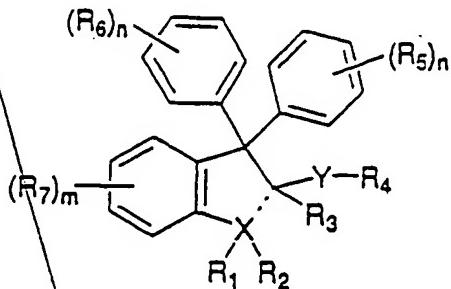
Please amend the above-captioned application as follows:

*In The Claims:*

Please amend claims 1, 3, 4, 6, 7, and 11 as follows:

-- 1. A compound having the structural formula:

(I)



or a pharmaceutically acceptable salt or hydrate thereof,  
wherein:

A1  
m is 0, 1, 2, 3 or 4;  
each n is independently 0, 1, 2, 3, 4 or 5;  
X is C;  
Y is absent, (C<sub>1</sub>-C<sub>6</sub>) alkyl, (C<sub>1</sub>-C<sub>6</sub>) alkenyl or (C<sub>1</sub>-C<sub>6</sub>) alkynyl;

R<sub>1</sub> is absent, -OR, -SR, =O, =S, =N-OR, -O-C(O)R, -S-C(O)R, -O-C(S)R, -S-C(S)R, or when taken together with R<sub>2</sub> is a 3-8 membered heterocycloalkyl or a substituted 3-8 membered heterocycloalkyl;

R<sub>2</sub> is absent or -H;

R<sub>3</sub> is absent or -H;

R<sub>4</sub> is -H, -OR', -SR', -NR'<sub>2</sub>, -CN, -NO<sub>2</sub>, (C<sub>1</sub>-C<sub>6</sub>) cycloalkyl, 3-8 membered heterocycloalkyl, -C(O)R', -C(S)R', -C(O)OR', -C(S)OR', -C(O)SR', -C(S)SR', -C(O)NR'<sub>2</sub>, or -C(S)NR'<sub>2</sub>;

each R<sub>5</sub>, R<sub>6</sub> and R<sub>7</sub> is independently selected from the group consisting of -halogen, -R', -OR', -SR', -NR'<sub>2</sub>, -ONR'<sub>2</sub>, -SNR'<sub>2</sub>, -NO<sub>2</sub>, -CN, -C(O)R', -C(S)R', -C(O)OR', -C(O)SR', -C(S)OR', -CS(S)R', -C(O)NR'<sub>2</sub>, -C(S)NR'<sub>2</sub>, -C(O)NR'(OR'), -C(S)NR'(OR'); -C(O)NR'(SR'), -C(S)NR'(SR'), -CH(CN)<sub>2</sub>, -CH[C(O)R']<sub>2</sub>, -CH[C(S)R']<sub>2</sub>, -CH[C(O)OR']<sub>2</sub>, -CH[C(S)OR']<sub>2</sub>, -CH[C(O)SR']<sub>2</sub>, and -CH[C(S)SR']<sub>2</sub>;

each R is independently selected from the group consisting of -H, ( $C_1-C_6$ ) alkyl, ( $C_1-C_6$ ) alkenyl, ( $C_1-C_6$ ) alkynyl, ( $C_5-C_{20}$ ) aryl, substituted ( $C_5-C_{20}$ ) aryl, ( $C_6-C_{26}$ ) alkaryl and substituted ( $C_6-C_{26}$ ) alkaryl;

the heterocycloalkyl substituents are each independently selected from the group consisting of -CN, -NO<sub>2</sub>, -NR'<sub>2</sub>, -OR', -C(O)NR'<sub>2</sub>, -C(S)NR'<sub>2</sub>, -C(O)OR', -C(S)OR', -C(O)SR', -C(S)SR' and trihalomethyl;

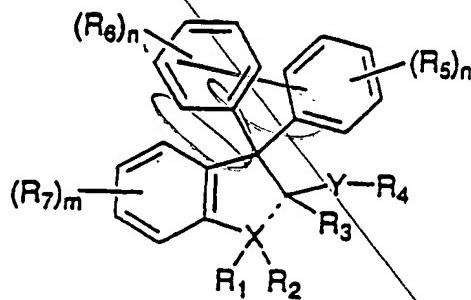
A !  
the aryl and alkaryl substituents are each independently selected from the group consisting of halogen, -C(O)R', -C(S)R', -C(O)OR', -C(S)OR', -C(O)SR', -C(S)SR', -C(O)NR'<sub>2</sub>, -C(S)NR', and trihalomethyl;

each R' is independently selected from the group consisting of -H, ( $C_1-C_6$ ) alkyl, ( $C_1-C_6$ ) alkenyl and ( $C_1-C_6$ ) alkynyl;

--- designates a single or double bond; and  
wherein when X is C and R<sub>1</sub> is =O or -OH, at least one of R<sub>5</sub>, R<sub>6</sub> or R<sub>7</sub> is other than -H, or Y is present or R<sub>4</sub> is other than -H.

3. A pharmaceutical composition comprising a compound and a pharmaceutically acceptable excipient, carrier or diluent, said compound having the structural formula:

A<sup>2</sup>  
(I)



or a pharmaceutically acceptable salt or hydrates thereof,  
wherein:

m is 0, 1, 2, 3 or 4;

each n is independently 0, 1, 2, 3, 4 or 5;

X is C;

Y is absent, ( $C_1-C_6$ ) alkyl, ( $C_1-C_6$ ) alkenyl or ( $C_1-C_6$ ) alkynyl;

R<sub>1</sub> is absent, -OR, -SR, =O, =S, =N-OR, -O-C(O)R, -S-C(O)R, -O-C(S)R, -S-C(S)R, or when taken together with R<sub>2</sub>, is a 3-8 membered heterocycloalkyl or a substituted 3-8 membered heterocycloalkyl;

R<sub>2</sub> is absent or -H;

R<sub>3</sub> is absent or -H;

A2  
R<sub>4</sub> is -H, -OR', -SR', -NR'<sub>2</sub>, -CN, -NO<sub>2</sub>, ( $C_3-C_8$ ) cycloalkyl, 3-8 membered heterocycloalkyl, -C(O)R', -C(S)R', -C(O)OR', -C(S)OR', -C(O)SR', -C(S)SR', -C(O)NR'<sub>2</sub> or -C(S)NR'<sub>2</sub>;

each R<sub>5</sub>, R<sub>6</sub> and R<sub>7</sub> is independently selected from the group consisting of -halogen, -R', -OR', -SR', -NR'<sub>2</sub>, -ONR'<sub>2</sub>, -SNR'<sub>2</sub>, -NO<sub>2</sub>, -CN, -C(O)R', -C(S)R', -C(O)OR', -C(O)SR', -C(S)OR', -CS(S)R', -C(O)NR'<sub>2</sub>, -C(S)NR'<sub>2</sub>, -C(O)NR'(OR'), -C(S)NR'(OR'); -C(O)NR'(SR'), -C(S)NR'(SR'), -CH(CN)<sub>2</sub>, -CH[C(O)R']<sub>2</sub>, -CH[C(S)R']<sub>2</sub>, -CH[C(O)OR']<sub>2</sub>, -CH[C(S)OR']<sub>2</sub>, -CH[C(O)SR']<sub>2</sub>, and -CH[C(S)SR']<sub>2</sub>;

each R is independently selected from the group consisting of -H, ( $C_1-C_6$ ) alkyl, ( $C_1-C_6$ ) alkenyl, ( $C_1-C_6$ ) alkynyl, ( $C_6-C_{20}$ ) aryl, substituted ( $C_6-C_{20}$ ) aryl, ( $C_6-C_{26}$ ) alkaryl and substituted ( $C_6-C_{26}$ ) alkaryl;

the heterocycloalkyl substituents are each independently selected from the group consisting of -CN, -NO<sub>2</sub>, -NR'<sub>2</sub>, -OR', -C(O)NR'<sub>2</sub>, -C(S)NR'<sub>2</sub>, -C(O)OR', -C(S)OR', -C(O)SR', -C(S)SR' and trihalomethyl;

the aryl and alkaryl substituents are each independently selected from the group consisting of halogen, -C(O)R'; -C(S)R', -C(O)OR', -C(S)OR', -C(O)SR', -C(S)SR', -C(O)NR'<sub>2</sub>, -C(S)NR'<sub>2</sub>, and trihalomethyl;

each R' is independently selected from the group consisting of -H, (C<sub>1</sub>-C<sub>6</sub>) alkyl, (C<sub>1</sub>-C<sub>6</sub>) alkenyl and (C<sub>1</sub>-C<sub>6</sub>) alkynyl; and

--- designates a single or double bond.

4. The pharmaceutical composition of Claim 3, wherein in the compound of structural formula (I):

m is 0 or 1;

each n is independently 0 or 1;

X is C;

A2  
Y is absent, (C<sub>1</sub>-C<sub>3</sub>) alkyl, (C<sub>1</sub>-C<sub>3</sub>) alkenyl or (C<sub>1</sub>-C<sub>3</sub>) alkynyl;

R<sub>1</sub> is absent -H, -OR, =O, =NR<sub>2</sub>, =N-OR, -O-C(O)R, or when taken together with R<sub>2</sub> is 3-5 membered oxirane or 3-5 membered substituted oxirane;

R<sub>2</sub> is absent or -H;

R<sub>3</sub> is absent or -H;

R<sub>4</sub> is -H, -OR, -NR<sub>2</sub>, -CN, -C(O)OR, -C(O)NR<sub>2</sub> or 5-6 membered dioxocycloalkyl;

each R<sub>5</sub>, R<sub>6</sub> and R<sub>7</sub> is independently selected from the group consisting of -R', -F, -Cl or -Br;

each R is independently selected from the group consisting of -H, (C<sub>1</sub>-C<sub>3</sub>) alkyl, (C<sub>1</sub>-C<sub>3</sub>) alkenyl, (C<sub>1</sub>-C<sub>3</sub>) alkynyl, (C<sub>5</sub>-C<sub>10</sub>) aryl, substituted (C<sub>5</sub>-C<sub>10</sub>) aryl, (C<sub>6</sub>-C<sub>11</sub>) alkaryl, substituted C<sub>6</sub>-C<sub>11</sub>) alkaryl;

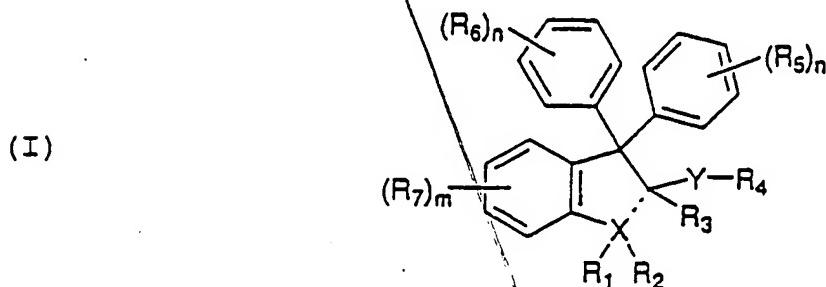
the oxirane substituent is -CN, -NO<sub>2</sub>, -NR'<sub>2</sub>, -OR' and trihalomethyl;

the aryl and alkaryl substituents are each independently selected from the group consisting of -F, -Cl, -Br, -CN, -NO<sub>2</sub>, -NR'<sub>2</sub>, -C(O)R', -C(O)OR' and trihalomethyl;

R' is -H, (C<sub>1</sub>-C<sub>3</sub>) alkyl, (C<sub>1</sub>-C<sub>3</sub>) alkenyl or (C<sub>1</sub>-C<sub>3</sub>) alkynyl; and

--- is a single or double bond.

6. A method of inhibiting mammalian cell proliferation, said method comprising the step of contacting a mammalian cell *in situ* with an effective amount of a compound having the structural formula:



A3  
or a pharmaceutically acceptable salt or hydrate thereof, wherein:

m is 0, 1, 2, 3 or 4;

each n is independently 0, 1, 2, 3, 4 or 5;

X is C;

Y is absent, (C<sub>1</sub>-C<sub>6</sub>) alkyl, (C<sub>1</sub>-C<sub>6</sub>) alkenyl or (C<sub>1</sub>-C<sub>6</sub>) alkynyl;

R<sub>1</sub> is absent, -OR, -SR, =O, =S, =N-OR', -O-C(O)R, -S-C(O)R, -O-C(S)R, -S-C(S)R, or when taken together with R<sub>2</sub>, is a 3-8 membered heterocycloalkyl or a substituted 3-8 membered heterocycloalkyl;

R<sub>2</sub> is absent or -H;

R<sub>3</sub> is absent or -H;

R<sub>4</sub> is -H, -OR', -SR', -NR'<sub>2</sub>, -CN, -NO<sub>2</sub>, (C<sub>1</sub>-C<sub>6</sub>) cycloalkyl, 3-8 membered heterocycloalkyl, -C(O)R', -C(S)R', -C(O)OR', -C(S)OR', -C(O)SR', -C(S)SR', -C(O)NR'<sub>2</sub>, or -C(S)NR'<sub>2</sub>;

each R<sub>5</sub>, R<sub>6</sub> and R<sub>7</sub> is independently selected from the group consisting of -halogen, -R', -OR', -SR', -NR'<sub>2</sub>, -ONR'<sub>2</sub>, -SNR'<sub>2</sub>, -NO<sub>2</sub>, -CN, -C(O)R', -C(S)R', -C(O)OR', -C(O)SR', -C(S)OR', -CS(S)R', -C(O)NR'<sub>2</sub>, -C(S)NR'<sub>2</sub>, -C(O)NR'(OR'),

~~-C(S)NR'(OR'); -C(S)NR'(SR'), -C(S)NR'(SR'), -CH(CN)<sub>2</sub>, -CH[C(O)R']<sub>2</sub>, -CH[C(S)R']<sub>2</sub>, -CH[C(O)OR']<sub>2</sub>, -CH[C(S)OR']<sub>2</sub>, -CH[C(O)SR']<sub>2</sub>, and -CH[C(S)SR']<sub>2</sub>;~~

~~each R is independently selected from the group consisting of -H, (C<sub>1</sub>-C<sub>6</sub>) alkyl, (C<sub>1</sub>-C<sub>6</sub>) alkenyl, (C<sub>1</sub>-C<sub>6</sub>) alkynyl, (C<sub>5</sub>-C<sub>20</sub>) aryl, substituted (C<sub>5</sub>-C<sub>20</sub>) aryl, (C<sub>6</sub>-C<sub>25</sub>) alkaryl and substituted (C<sub>6</sub>-C<sub>26</sub>) alkaryl;~~

~~the heterocycloalkyl substituents are each independently selected from the group consisting of -CN, -NO<sub>2</sub>, -NR'<sub>2</sub>, -OR', -C(O)NR'<sub>2</sub>, -C(S)NR'<sub>2</sub>, -C(O)OR', -C(S)OR', -C(O)SR', -C(S)SR' and trihalomethyl;~~

~~A3~~  
~~the aryl and alkaryl substituents are each independently selected from the group consisting of halogen, -C(O)R', -C(S)R', -C(O)OR', -C(S)OR', -C(O)SR', -C(S)SR', -C(O)NR'<sub>2</sub>, -C(S)NR', and trihalomethyl;~~

~~each R' is independently selected from the group consisting of -H, (C<sub>1</sub>-C<sub>6</sub>) alkyl, (C<sub>1</sub>-C<sub>6</sub>) alkenyl and (C<sub>1</sub>-C<sub>6</sub>) alkynyl; and~~

~~--- designates a single or double bond.~~

7. The method of Claim 6, wherein in the compound of structural formula (I):

~~m is 0 or 1;~~

~~each n is independently 0 or 1;~~

~~X is C<sup>+</sup>~~

~~Y is absent, (C<sub>1</sub>-C<sub>3</sub>) alkyl, (C<sub>1</sub>-C<sub>3</sub>) alkenyl or (C<sub>1</sub>-C<sub>3</sub>) alkynyl;~~

~~R<sub>1</sub> is absent -H, -OR, =O, -NR<sub>2</sub>, =N-OR, -O-C(O)R, or when taken together with R<sub>2</sub> is 3-5 membered oxirane or 3-5 membered substituted oxirane;~~

~~R<sub>2</sub> is absent or -H;~~

~~R<sub>3</sub> is absent or -H;~~

~~R<sub>4</sub> is -H, -OR, -NR<sub>2</sub>, -CN, -C(O)OR, -C(O)NR<sub>2</sub> or 5-6 membered dioxocycloalkyl;~~

~~each R<sub>5</sub>, R<sub>6</sub> and R<sub>7</sub> is independently selected from the group consisting of -R', -F, -Cl or -Br;~~

each R is independently selected from the group consisting of -H, (C<sub>1</sub>-C<sub>3</sub>) alkyl, (C<sub>1</sub>-C<sub>3</sub>) alkenyl, (C<sub>1</sub>-C<sub>3</sub>) alkynyl, (C<sub>5</sub>-C<sub>10</sub>) aryl, substituted (C<sub>5</sub>-C<sub>10</sub>) aryl, (C<sub>6</sub>-C<sub>13</sub>) alkaryl, substituted C<sub>6</sub>-C<sub>13</sub>) alkaryl;

the oxirane substituent is -CN, -NO<sub>2</sub>, -NR'<sub>2</sub>, -OR' and trihalomethyl;

A3  
the aryl and alkaryl substituents are each independently selected from the group consisting of -F, -Cl, -Br, -CN, -NO<sub>2</sub>, -NR'<sub>2</sub>, -C(O)R', -C(O)OR' and trihalomethyl;

R' is -H, (C<sub>1</sub>-C<sub>3</sub>) alkyl, (C<sub>1</sub>-C<sub>3</sub>) alkenyl or (C<sub>1</sub>-C<sub>3</sub>) alkynyl; and

--- is a single or double bond.

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A4  
11. The method of Claim 10, wherein in the compound of structural formula (I):

m is 0 or 1;

each n is independently 0 or 1;

X is C;

Y is absent, (C<sub>1</sub>-C<sub>3</sub>) alkyl, (C<sub>1</sub>-C<sub>3</sub>) alkenyl or (C<sub>1</sub>-C<sub>3</sub>) alkynyl;

R<sub>1</sub> is absent -H, -OR, =O, -NR<sub>2</sub>, =N-OR, -O-C(O)R, or when taken together with R<sub>2</sub> is 3-5 membered oxirane or 3-5 membered substituted oxirane;

~~R<sub>1</sub> is absent or -H;~~  
~~R<sub>2</sub> is absent or -H;~~  
~~R<sub>3</sub> is -H, -OR, -NR<sub>2</sub>, -CN, -C(O)OR, -C(O)NR<sub>2</sub> or 5-6  
membered dioxocycloalkyl;~~  
~~each R<sub>5</sub>, R<sub>6</sub> and R<sub>7</sub> is independently selected from the  
group consisting of -R', -F, -Cl or -Br;~~  
~~each R is independently selected from the group  
consisting of -H, (C<sub>1</sub>-C<sub>3</sub>) alkyl, (C<sub>1</sub>-C<sub>3</sub>) alkenyl, (C<sub>1</sub>-C<sub>3</sub>)  
alkynyl, (C<sub>5</sub>-C<sub>10</sub>) aryl, substituted (C<sub>5</sub>-C<sub>10</sub>) aryl, (C<sub>6</sub>-C<sub>13</sub>)  
alkaryl, substituted C<sub>6</sub>-C<sub>13</sub>) alkaryl;~~  
~~the oxirane substituent is -CN, -NO<sub>2</sub>, -NR'<sub>2</sub>, -OR' and  
trihalomethyl;~~  
~~the aryl and alkaryl substituents are each independently  
selected from the group consisting of -F, -Cl, -Br, -CN, -NO<sub>2</sub>,  
-NR'<sub>2</sub>, -C(O)R', -C(O)OR' and trihalomethyl;~~  
~~R' is -H, (C<sub>1</sub>-C<sub>3</sub>) alkyl, (C<sub>1</sub>-C<sub>3</sub>) alkenyl or (C<sub>1</sub>-C<sub>3</sub>) alkynyl;  
and  
--- is a single or double bond. --~~